

Review 187

Graphing Linear Equations

The **solutions** of $y = x + 3$ are the (x, y) pairs that make the equation true.

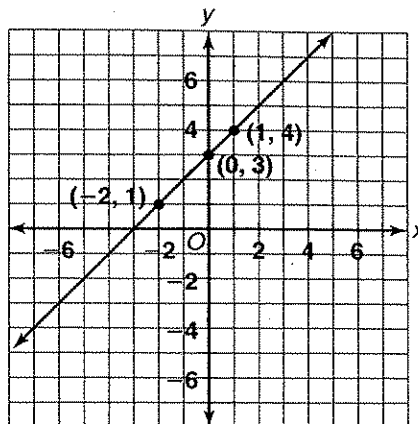
The solutions can be listed in a table.

x	$x + 3$	y	(x, y)
0	$0 + 3$	3	$(0, 3)$
1	$1 + 3$	4	$(1, 4)$
-2	$-2 + 3$	1	$(-2, 1)$

If all the solutions lie on a line, the equation is a **linear equation** and the line is its **graph**.

$y = x + 3$ is a linear equation.

The solutions can be graphed in the coordinate plane, as shown.



Complete each table.

1. $y = x - 4$

x	$x - 4$	y	(x, y)
2	$2 - 4$	-2	$(2, -2)$
4	$4 - 4$	0	$(4, 0)$
6	$6 - 4$	2	$(6, 2)$

2. $y = 3x$

x	$3x$	y	(x, y)
-1	$3(-1)$	-3	$(-1, -3)$
0	$3(0)$	0	$(0, 0)$
3	$3(3)$	9	$(3, 9)$

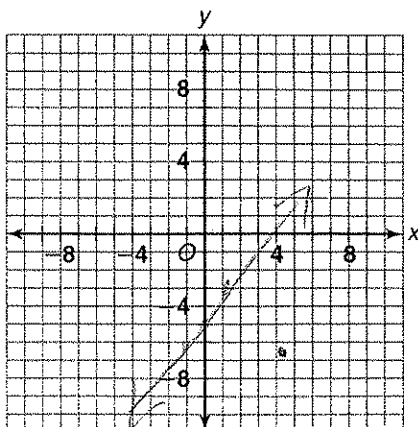
3. $y = -x + 1$

x	$-x + 1$	y	(x, y)
0	$0 + 1$	1	$(0, 1)$
2	$-2 + 1$	-1	$(2, -1)$
-3	$-(-3) + 1$	4	$(-3, 4)$

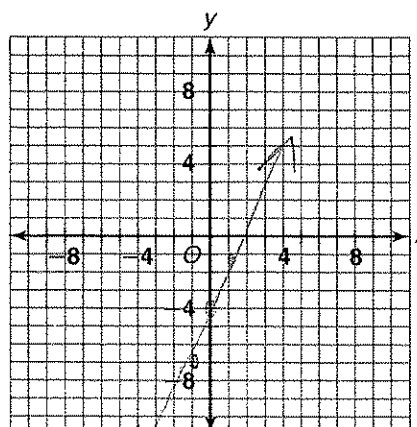
$3 + 1$

Graph each linear equation.

4. $y = x - 5$



5. $y = 3x - 4$



x	$x - 5$	y	(x, y)
-1	$-1 - 5$	-6	$(-1, -6)$
0	$0 - 5$	-5	$(0, -5)$
1	$1 - 5$	-4	$(1, -4)$

x	$3x - 4$	y	(x, y)
-1	$3(-1) - 4$	-7	$(-1, -7)$
0	$0 - 4$	-4	$(0, -4)$
1	$3(1) - 4$	-1	$(1, -1)$